

Claims

- [c1] An iso bearing for a circuit breaker, said bearing comprising:
an inner surface, an outer surface, and a body extending therebetween, said inner surface comprising a pair of bosses and a pair of openings, said outer surface comprising at least one boss, said body comprising a pair of rotor protective flaps.
- [c2] A bearing in accordance with Claim 1 wherein said body outer surface and said inner surface are substantially planar.
- [c3] A bearing in accordance with Claim 1 wherein said body further comprises a perimeter and is substantially circular.
- [c4] A bearing in accordance with Claim 1 wherein said pair of bosses are diametrically opposed, each said boss sized to receive a rotor pin therein.
- [c5] A bearing in accordance with Claim 1 wherein said pair of openings are diametrically opposed, each said opening sized to receive a rotor boss therethrough.
- [c6] A bearing in accordance with Claim 1 wherein said pair of rotor protective flaps are diametrically opposed, said flaps extend substantially perpendicularly from said inner surface along said body perimeter.
- [c7] A bearing in accordance with Claim 1 wherein said pair of rotor protective flaps are adjacent said plurality of openings and receptacles.
- [c8] A bearing in accordance with Claim 1 wherein each said rotor protective flap has a height that is greater than a thickness of said body.
- [c9] A bearing in accordance with Claim 1 wherein said body outer surface comprises a boss configured to couple said body to the circuit breaker.
- [c10] A bearing in accordance with Claim 1 wherein said bearing is fabricated from a nonconductive material.
- [c11] A rotary contact assembly for a circuit breaker, said assembly comprising:

a rotor assembly comprising a plurality of pins, a linkage assembly, and a pair of rotor halves, each said rotor half comprising an inner and an outer surface and a perimeter, said outer surface comprising a plurality of bosses;
a contact arm configured to be mechanically and electrically coupled to said rotor assembly inner surface by said plurality of pins and said linkage assembly;
and
a plurality of iso bearings mechanically coupled to said rotor assembly outer surface by the plurality of rotor bosses, said iso bearing comprising a pair of rotor protective flaps partially circumscribing said rotary contact assembly perimeter to facilitate shielding said plurality of pins and said link assembly.

[c12] An assembly in accordance with Claim 11 wherein said pair of rotor protective flaps are diametrically opposed, said flaps extend substantially perpendicularly from said rotary contact assembly perimeter.

[c13] An assembly in accordance with Claim 11 wherein said iso bearings and said contact arm are configured to rotate about the same axis of rotation.

[c14] An assembly in accordance with Claim 11 wherein the rotor halve outer surfaces comprise a plurality of bosses configured to couple each said rotor halve to said iso bearings.

[c15] An assembly in accordance with Claim 11 wherein said iso bearings comprise a boss configured to attach said iso bearing to the circuit breaker.

[c16] An assembly in accordance with Claim 11 wherein said iso bearing is fabricated from a nonconductive material.

[c17] A circuit breaker comprising:
a pair of electrically insulative cassette half pieces comprising a cavity therein;
a plurality of electrically conductive straps positioned within each said half piece;
a rotor contact assembly positioned in said cavity, said assembly comprising a plurality of pins, a linkage assembly, and a pair of rotor halves, each said rotor half comprising an inner and an outer surface and a perimeter, said outer surface comprising a plurality of bosses;

a contact arm configured to be mechanically and electrically coupled to said rotor assembly inner surface by said plurality of pins and said linkage assembly;
a plurality of iso bearings mechanically coupled to said rotor contact assembly outer surface by the plurality of rotor bosses, each said iso bearing comprising a pair of rotor protective flaps partially circumscribing said rotary contact assembly perimeter to facilitate shielding said plurality of pins and said link assembly;
an operating mechanism configured to separate said conductive straps and a contact arm; and
a plurality of arc chambers coupled to each said half pieces.

[c18] A circuit breaker in accordance with Claim 17 wherein said pair of rotor protective flaps are diametrically opposed, said flaps extend substantially perpendicularly from said rotary contact assembly perimeter.

[c19] A circuit breaker in accordance with Claim 17 wherein said rotor includes a first half and a second half, said contact arm positioned between said first and second rotor halves.

[c20] A circuit breaker in accordance with Claim 17 wherein said rotor further includes a plurality bosses positioned on each of said first and second halves such that said iso bearings mechanically couple to said rotor.

[c21] A circuit breaker in accordance with Claim 17 wherein each of said iso bearing is fabricated from a nonconductive material.